

541, 636

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 July 2004 (29.07.2004)

PCT

(10) International Publication Number
WO 2004/063825 A1

(51) International Patent Classification⁷: **G05D 16/18**,
F12B 41/04

(21) International Application Number:
PCT/GB2003/005706

(22) International Filing Date:
31 December 2003 (31.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0300476.9 9 January 2003 (09.01.2003) GB

(71) Applicant (for all designated States except US):
AAF-MCQUAY INC. [US/US]; 10300 Ormsby Park
Place, Suite 600, Louisville, KY 40223 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **ROLL, John**,
Michael [GB/GB]; Talbot Lodge, Castle Hill, Fawkham,

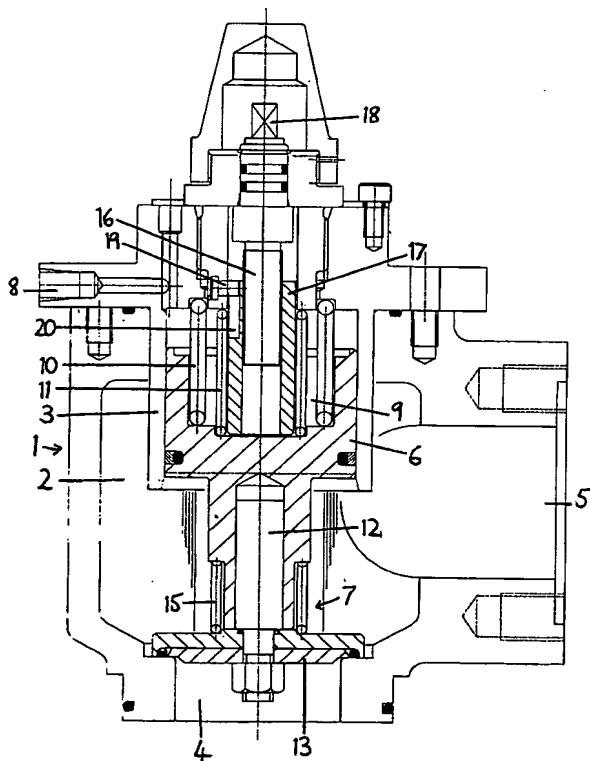
Kent DA3 7BQ (GB). **WOODARD, Peter, Michael**
[GB/GB]; 1 Lion Cottages, High Road, Horn-
don-on-the-Hill, Essex SS17 8LQ (GB). **ELLINGHAM**,
Andrew, Albert [GB/GB]; 97 Shrubbery Road, South
Darenth, Dartford, Kent DA4 9AP (GB). **YOUNG, Ter-**
ence, William, Thomas [GB/GB]; 265 Singlewell Road,
Gravesend, Kent DA11 7RN (GB).

(74) Agent: **HANSON, William, Bennett**; Bromhead John-
son, Kingsbourne House, 229-231 High Holborn, London
WC1V 7DP (GB).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR,
CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,
MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU,
SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA,
UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

[Continued on next page]

(54) Title: VALVE



(57) Abstract: A valve comprises a housing (1) having an inlet (4) and an outlet (5), and a pressure sensing port (8). A piston (6) slides in a part (3) of the housing (1) in response to a difference between a first fluid pressure at the pressure sensing port on the one side of the piston, and a second fluid pressure at the inlet and/or outlet on the other side of the piston (6). A valve member (7) carried by the piston is operable thereby to close the inlet (4) when said second fluid pressure is less than a value sufficiently greater than said first fluid pressure. The valve member (7) is movable with respect to the piston (6) to facilitate closing of the inlet (4), in response to a fluid flow from the housing (1) to the inlet (4), when the piston is not acting to close the inlet.

WO 2004/063825 A1



(84) **Designated States (regional):** ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- with amended claims

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.